UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,063	02/13/2004	Youji Notoya	2004_0215A	5638

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>10 October 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-15</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-15</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>13 February 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed on October 10, 2007 have been fully considered but they are not persuasive. Claims 1-15 are currently pending.

2.   Claims 1, 3-5, 8, and 12-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Boon (EP 0971 543 A1).

3.   The applicant argues that the reference does not teach flag information indicating that display order information or coding order information of the pictures is non-sequential. The examiner respectfully disagrees. Boon et al discloses a flag that indicates whether or not the compressed image data Dv is suitable for use in random reproduction (see paragraph [0105] and [0141]), which is associated with the display order or coding order of the video signal.

4.   The applicant argues that the reference does not teach determining that the picture order is non-sequential when values indicated by the coding order information of the pictures are in non-sequential order. The examiner respectfully disagrees. The examiner acknowledges that Fig 5a discloses an intra-frame coding process, but this is to relate the coding order aspect of compression to the applicant. The applicant is referred to paragraphs ([0105] and [0141]), which indicates the random reproduction due to the coding order being non-sequential, which is associated to the picture order.

5.   The applicants have not been found persuasive enough to continue further with allowing the application further as a patent.

6.   Detailed descriptions of the newly added limitation are as follows.

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8.   Claims 1, 3-5, 8, and 12-15 (to be changed) rejected under 35 U.S.C. 102(b) as

being anticipated by Boon et al (EP 0 971 543 A1).

As per claim 1, Boon et al disclose a moving picture coding method for coding a

moving picture signal on a picture-by-picture basis and generating a coded stream, the

method comprising (Fig 3):

a flag information generation step (Fig 3, 433) of generating flag information

indicating that display order information or coding order information of the picture is non-

sequential ([0105] and [0141]); and

an information insertion step of inserting the flag information into the coded

stream (Figs 5 and 6; [0141], [0150] and [0190]).

As per claim 3, Boon et al disclose the moving picture coding method according

to claim 1, further comprising determining that the picture order is non-sequential when

values indicated by the coding order information of the pictures are in non-sequential

order (Fig 5a, [0105], [0141]; Table 4, 814).

As per claim 4, Boon et al disclose the moving picture coding method according to claim 1, wherein in the information insertion step, the flag information (Fig 5a, Hfd) is inserted between two pictures in the coded stream (Fig 5a shows that the flag is inserted in between the end of the previous "I" picture and current "I" picture), said two pictures being non-sequential in picture order (Fig 5a, [0167]).

As per claim 5, Boon et al disclose the moving picture coding method according to claim 1, further comprising a position information generation step (Fig 3, 433) of generating position information (Fig 5a, Had, alignment data) for identifying a position where the picture order is non-sequential ([0150], the flag is also able to provide a position of the current picture since it is inserted between two pictures), and

wherein in the information insertion step, the position information is inserted together with the flag information (Fig 5a, Hfd and Had, [0150]).

As per claim 8, Boon et al disclose a moving picture decoding method for decoding a coded stream on a picture-by-picture basis (Fig 8, [0215]), the method comprising:

an information extraction step (Fig 8, 502) of extracting flag information indicating that display order information or coding order information is non-sequential ([0216] and [0217]); and

a management step (Fig 8, 521) of managing an area for storing a decoded picture based on the flag information ([0220] – [0222]).

Regarding claim 12, arguments analogous to those presented for claim 1 are

applicable to claim 12.

Regarding claim 13, arguments analogous to those presented for claim 8 are

applicable to claim 13.

Regarding claim 14, arguments analogous to those presented for claim 1 are

applicable to claim 14.

Regarding claim 15, arguments analogous to those presented for claim 8 are

applicable to claim 15.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

10.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
        obviousness or nonobviousness.

11.   Claims 2, 6, 7, 9 and 11 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Boon et al (EP 0 971 543 A1) in view of Teo et al (US 5,621,464).

As per claim 2, Boon et al disclose the moving picture coding method according

to claim 1,further comprising determining that the picture order is non-sequential when

values indicated by the display order information of the pictures are in non-sequential

order (Fig 3, 433; [0141]).

However, Boon et al does not explicitly teach when values indicated by display

order information of the pictures are in non-sequential order, it is determined that the

picture order is non-sequential.

In the same field of endeavor, Teo et al teaches obviously that when values

indicated by display order information of the pictures are in non-sequential order, it is

determined that the picture order is non-sequential (Col 1 Ln 29-40; Col 3 Ln 55-63).

Therefore, it would have been obvious to one having ordinary skill in the art at

the time of the invention was made to modify the image coder of Boon et al with the

method of Teo et al. It is well known knowledge that with motion prediction specifically

B-pictures that the picture order becomes non-sequential. The advantage would be that

it notifies the image coding system to correct the picture order sequence, which results

in reduction in memory buffer, power consumption and cost (Teo et al; Col 6 Ln 7-11).

As per claim 6, arguments analogous to those presented for claims 1 and 2 are

applicable to claim 6.

As per claim 7, Boon et al disclose the moving picture coding method according to claim 6,

wherein in the coding step (Fig 3, 414; [0142]), the moving picture is coded such that a display order of pictures in the predetermined coding unit is sequential (Fig 5a; the predetermined coding unit consist of a plurality of I-frames, which would be a sequential display order), and such that the display order of pictures in a predetermined coding unit is located earlier than a display order of pictures in a predetermined coding unit immediately following said predetermined coding unit in coding order (Fig 5a, the prior art shows the coding unit being displayed earlier than a predetermined coding unit).

As per claim 9, Boon et al disclose the picture decoding method according to claim 8.

However, Boon et al does not explicitly teach wherein the flag information indicates that values indicated by display order information of the pictures are in non-sequential order, and

in the management step, a picture whose position is the earliest in display order among decoded pictures stored in the area is determined based on the display order information and the flag information, and the determined picture is determined as a picture to be removed.

In the same field of endeavor, Teo et al disclose wherein the flag information indicates that values indicated by the display order information of the pictures are in non-sequential order (Col 1 Ln 29-40; Col 3 Ln 55-63), and

in the management step, a picture whose position is the earliest in display order among decoded pictures stored in the area is determined based on the display order information and the flag information, and the determined picture is determined as a picture to be removed (Col 5 Ln 5- Col 6 Ln 5).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the image coder of Boon et al with the method of Teo et al. It is well known knowledge that with motion prediction specifically B-pictures that the picture order becomes non-sequential. The advantage would be that it notifies the image coding system to correct the picture order sequence, which results in reduction in memory buffer, power consumption and cost (Teo et al; Col 6 Ln 7-11).

As per claim 11, Boon et al disclose the moving picture decoding method according to claim 8, further comprising an invalid picture storage step of storing an invalid picture in the area when values indicated by coding order information of the pictures are in non-sequential order ([0220]-[0222] and [0232]-[0240]),

in the management step, whether or not to store an invalid picture in the area is determined based on the flag information and the coding order information ([0232]-[0240]), and

in the invalid picture storage step, an invalid picture is stored in the area based

on a result of the determination made in the management step ([0220]-[0222]).

However, does not explicitly teach wherein the flag information indicates that the

values indicated by the coding order information are in non-sequential order.

In the same field of endeavor, Teo et al discloses wherein the flag information

indicates that the values indicated by the coding order information are in non-sequential

order (Col 1 Ln 29-40).

Therefore, it would have been obvious to one having ordinary skill in the art at

the time of the invention was made to modify the image coder of Boon et al with the

method of Teo et al. It is well known knowledge that with motion prediction specifically

B-pictures that the picture order becomes non-sequential. The advantage would be that

it notifies the image coding system to correct the picture order sequence.

12. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Boon et

al (EP 0 971 543 A1) in view of Teo et al (US 5,621,464), as applied to claim 9 above,

and further in view of Asai et al (US 6,710,785).

As per claim 10, Boon et al disclose the moving picture decoding method

according to claim 9.

However, Boon et al does not explicitly teach clip information is given to the

decoded picture stored in the area, said clip information being updated; and

a picture whose position is the earliest in display order among the decoded

pictures stored in the area is determined based on the clip information, and the

determined picture is determined as a picture to be removed.

In the same field of endeavor, Asai et al does teach clip information is given to

the decoded picture stored in the area, said clip information being updated; and

a picture whose position is the earliest in display order among the decoded

pictures stored in the area is determined based on the clip information, and the

determined picture is determined as a picture to be removed (Col 12 Ln 32 – Col 13 Ln

3).

Therefore, it would have been obvious to one having ordinary skill in the art at

the time of the invention was made to modify the image coder of Boon et al with the use

of clip information of Asai et al. The advantage of modifying the image coder of Boon et

al is that it aids in correctly sorting the clip information and display order of the video

stream.

Conclusion

13.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chikaodili E. Anyikire whose telephone number is (571)

270-1445. The examiner can normally be reached on Monday to Friday, 7:30 am to 5

pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Marsha D. Banks-Harold can be reached on (571) 272 - 7905. The fax

phone number for the organization where this application or proceeding is assigned is

571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CEA